32nd Annual Superficial Anatomy & Cutaneous Surgery Course

July 6-10, 2015
Del Mar Marriott Hotel, San Diego, California
Bi-level Anesthesia & Blunt Dissection
BLUNT DISSECTION -

- Blunt - Edged and Blunt - Tipped Scissors, Cannulas, or fingers
- Great separation strength
- Sharp instruments are used only to facilitate entry into subcutaneous space
- Should be on all surgical trays - not for cutting
- Spares injury to fat layer
- Reduces bleeding and scarring
- Allows Palpation to feel depth and movement of instrument
- Forward movement of the open “V” of your scissors’ fulcrum is used to shear the tissue layers from the flap underside.
- Least injury to nerves, vessels or ducts results from this shearing movement - separates naturally at weakest point.
HILTON’S MANEUVER
ANESTHESIA IN DERMATOLOGIC SURGERY

LOCAL

REGIONAL

TUMESCENT (liposuction and surgical)

BI-LEVEL

TECHNIQUES AND APPLICATIONS
TUMESCENT ANESTHESIA

- 1000 cc 0.9% Normal saline solution (NSS)

- Lidocaine 0.01% is standard Klein's formula (35 mgm/kg), but Lillis expanded to 50 mgm/kg, and Moy to 55 mgm/kg in healthy people.

- Epinephrine HCl 1:500,000 (face, neck, and scalp) to 1:1,500,000 (body). 1.0 cc (1 mgm) of 1:1000 fresh epinephrine/liter gives a 1:1,000,000 dilution.

- Sodium bicarbonate (8.4 meq/L) – use 12.5 cc to obtain 12.5 meq (8.4% NaH2CO3 solution). If you use Lactated Ringer’s solution, saves step of adding bicarbonate, which is another step with potential error. More expensive.

- Good to have pharmacists make up fresh. Then they have the responsibility.

- If you are using surgical tumescent solution, you may prefer to add Triamcinolone 5 mgm/100 cc diluent for chemical peel, laser, dermabrasion, cryopeel, etc.
Blunt multi-port infiltrator
Varying lengths

2.1 mm face & ant, lat neck
3.5 mm nuchal area, body & extremities
Field, Lawrence (1989)

**Surgical Tumescent Solution**
(Modified for non-liposuction applications):

- Lactated Ringer’s Solution (500 cc)
- 50 – 100 cc 1% Lidocaine (0.1 – 0.2%)
  - May use 2% for face and neck (to 0.3%)
    - Safe to 55 mg / kg
- 1 cc 1:1,000 fresh Epinephrine HCL (1:500,000)
  - (LSS is 1:1,000,000-1:1,500,000)
- Warm to 38 – 40 degrees Centigrade
- + / - Triamcinalone acetonide (5 mg)
Simplified Surgical Tumescent Anesthesia - 2008

Use Klein’s formula (based on 1000 cc), cut to 1/4 the volume (250 cc) of Ringers Lactate if available (or NSS if not).

For vascular areas, use 1/4 diluent (250 cc), and add Epinephrine 0.5 mgm.

Non-vascular areas, 0.25 mgm Epinephrine w/ Lidocaine 250 mgm (25 cc of 1% lidocaine solution). Put in the same quantities of additives as in the original formula (except use 1/4 the sodium bicarbonate if using NSS).

It is rare to use more than this quantity for a single case, but even double this quantity (500 cc) will not be in toxic levels for almost anyone.

If inflammation / edema expected, add small quantity of steroid (5-10 mgm triamcinolone).

In this circumstance worry more about too much epinephrine than too much lidocaine.

No known / reported allergic reactions (to my knowledge).
Delineation of Tumor Extension and Depth Utilizing Superficial and Deep Tumescence

XXIII Congress of the ISDS and the National Meeting of the Portuguese Group of Dermatologic Surgery, Porto, Portugal
September 2002

And the European Academy of Dermatology, (Surgical Section), Prague, Czechoslovakia
November 2002
M. Leventer, MD
ROMANIA - 2010

Founder and first president -
Romanian Society Dermatologic Surgery

First Mohs unit in Romania

Invited Speaker ASDS
Honorary Lectureship 2014

MENTOR / HOST

Romania, USA, Austria,
Germany, Indonesia, Korea, Thailand,
China, Indonesia
SubQ Tsunami Wave of Surgical Tumescent solution
The Bi-Level Anesthesia Technique (Field, L.)

- First Infiltrate Surgical Tumescent Solution into subcutaneous space by creating angled puncture wound

- Multiport infiltrator inserted to far limit of area to be anesthetized

- Inject on withdrawal unless invasive tumor suspected

- Tamponades deeper vessels

- Facilitates space and eases blunt undermining
“Pocar” - Pierre Fournier
Spreads elastin, collagen
w/o scar
Secondly, **Superficial cutaneous anesthetic** is then injected. Now instillation is less painful. Vital structures are protected by expanded subQ space. Decreases bleeding at incision lines to virtually nothing!!!!!!
Field, L.,

Blunt Liposuction Cannula Dissection and Flap Elevation - Origins and Applications,

American Society for Dermatologic Surgery, Monterey, California  April 1988
University of Porto, Porto, Portugal, October 2002
I. Juhász, MD
HUNGARY - 2011

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U. of Debrecen, Hungary

President, Hungarian Society of Dermatologic Surgery

Chair, EADV dermsurg training

Negative Pressure Wound Therapy

Hungary, Germany, Austria, Portugal, Indonesia
Field, L., Istvan Juhasz, MD, PhD.
Andras Tamas, MD, (Section of Dermatologic Surgery)
Paldeak, L., MD (Section of Dermatologic Surgery and Plastic Surgery)
University Medical School, Debrecen, Hungary

Dermatofibrosarcoma Protruberans:
A Case Presentation and Review of the Literature

10 yr. Survival Report
Dublin 2005
Surgical tumescent infiltration
Ready for STG
Change of Ex direction
Delineating incision line
Surgical tumescent into
Sub Q space w/ infiltrator
Standard anesthetic to depth of 
#27 needle at oblique angle -
@mini-Tbn skin test
Precise controlled incision only to fat layer
Blunt undermining in hydro-dissected plane
Field, L., Lestari, S., et al.,

The “Open Scissors Fulcrum Dissection” Technique,

5 months post op
A Huge Asymmetric Pigmented Nevus of Distal Nose - Excision and Repair by Two Supra-alar Hemi-Perinasal Crescentic Flaps (one transposition, 1 advancement) and Anastomosis - 1 year follow-up with Laserabrasion + Silicone
“Tulip” multi-port infiltrator with surgical tumescent anesthetic solution
And from below superiorly to hydro-dissect cheek flaps
undermining in hydrodissected to lift nevus, preserve nasal tip
Asymmetric central anastomosis, as majority of tissue came from left to right, w/ sacrifice of cone on the right.
1 year follow-up
Isabella de Santiago

4-port microinjection of pure Silicone &
“Sharplan” laser on previous scars

Plan to re-inject q 2 months.
M. Roscher, MD, SOUTH AFRICA - 2010

Founding President, South African Soc Derm Surgery

Founding Editor South African Jrl of Dermatologic Surgery

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South Africa, India, Austria, UK, Kuwait, Israel
Triangular excision of Szymanowski to remove excess tissue along course of incision line, but not at the end (von Burow)
Excision of Szymanowski
Field, L.  

Hairline Reconstruction Utilizing Modified Winged V-plastic Hair-bearing Flaps and Anastomotic Line Focal Excisions -  

A Case Report  

Dermatologic Surgery,  Vol. 22, No. 11,  Pp. 937 - 940  
November 1996
Makassar, Sulawesi, Indonesia
EXCISION

After bi-level anesthesia, blunt “open fulcrum” scissors and forceps were used to remove the hypertrophic keloid.
TUMESCENT EXCISION:
FOLLOW UP POST OPERATIVELY

1 MONTH

3 MONTHS
Conclusions:
Advantages of Combining Blunt Undermining, Surgical Tumescent Anesthesia, and Bi-level anesthesia (Field)

- **Maximal** Safety of any known system
- **Rapid** delivery of large volume
- Hydrodissection (via elevation)
- **Spares** all vital structures
- **Aids** in determining plane of tumor involvement / fixation
- Sharp instruments **only** penetrate epidermis
- **Blunt** instruments for subQ tissues & below
- Surgery can be completed in the **least time**
THANK YOU

Lawrence M Field, MD, FIACS

FOUNDER

International Traveling Mentorship Program (ITMP)

American Society of Dermatologic Surgery (ASDS)